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EXAMINER	
TAHA, SHAQ	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,923	HUNNEYBALL, TIMOTHY JOHN	
	Examiner	Art Unit	
	SHAQ TAHA	2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/10/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17 - 30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17 - 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This is a final action for application number 10/522,923 based on after non-final filed on 12/10/2008. The original application was filed on 01/25/2005. Claims 17 - 30 are currently pending and have been considered below. Claims 17 and 30 are independent claims.

Applicant's Response

Applicant's arguments filed in the amendment filed 12/10/08, have been fully considered but they are not persuasive. The reasons are set forth below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 17, 19, 20, 23 – 28, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brabson et al. (US 2002,0037168), in view of Kaplan et al. (US 6,473,404)

Regarding claim 17, a communications system, comprising: a) a first network for communicating data according to a first protocol, **[FIG. 2 illustrates an example**

scenario where end node 200 APPN network 210 requests a connection to end node 260 in a second APPN network 270, wherein the first network is Ref # 210, (Brabson et al., Paragraph 17, Page 2)],

b) a second network for communicating data according to a second protocol, [**[FIG. 2 illustrates an example scenario where end node 200 APPN network 210 requests a connection to end node 260 in a second APPN network 270, wherein the second network is Ref # 270, (Brabson et al., Paragraph 17, Page 2)],**

c) each network including at least one node, **[The route will include the originating node, the destination node, possibly one or more intermediate nodes, and the links or transmission groups which connect the nodes on the route as shown in Fig. 2, wherein networks 210 and 270 have their own nodes, (Brabson et al., Paragraph 5, Page 1)],**

d) a plurality of communication interfaces for providing communication between a first node of the first network and a second node of the second network, **[Border nodes enable communication between two or more networks, and have a network node interface for outbound communications from the native (e.g. originating node's) network and an end node interface for inbound communications from the non-native (e.g. destination node's) network, (Brabson et al., Paragraph 6, Page 1)],**

Brabson et al. fails to teach sending values to the first node for indicating availability of communication between that interface and the second node,

Kaplan et al. teaches each interface including means for sending values to the first node for indicating availability of communication between that interface and the

second node, **[means for measuring the value of variable parameters associated with each of the telecommunications paths, wherein sending the value of that interface to indicate availability as shown in Fig. 3, (Kaplan et al., Col. 3, Lines 6-10)]**,

e) selection means for selecting one of the interfaces for communicating the data between the first node and the second node based on the values sent by the interfaces to the first node, **[After all the interfaces have been analyzed in the above manner, then the routing optimization block 26 makes a determination as which interface should be selected in accordance with the highest value for final value, (Kaplan et al., Col. 7, Lines 53-58)]**,

f) each interface including means for detecting the selection of the one interface, **[measuring means for determining which of the plurality of telecommunications paths should be utilized for transferring the data file in accordance with the set of user priorities, (Kaplan et al., Col. 3, Lines 13-17)]**,

and means for modifying, on the selection of the selected one interface, the value sent to the first node, **[allows a user to override preset default values and specify critical transfer parameters on a file-by-file basis, wherein the user modifies the value of that interface, (Kaplan et al., Col. 2, Lines 59-64)]**,

and g) the selection means including means for preferentially selecting the interface associated with the value modified by the modifying means, **[After all the interfaces have been analyzed in the above manner, then the routing optimization block 26 makes a determination as which interface should be selected in**

accordance with the highest value for final value, (Kaplan et al., Col. 7, Lines 53-58)], to determine what portion of that bandwidth is actually available for use, **(Kaplan et al., Col. 8, Lines 2-5),**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Brabson by sending values to the first node for indicating availability of communication between that interface and the second node, **[means for measuring the value of variable parameters associated with each of the telecommunications paths, wherein sending the value of that interface to indicate availability as shown in Fig. 3, (Kaplan et al., Col. 3, Lines 6-10)],** to determine what portion of that bandwidth is actually available for use, **(Kaplan et al., Col. 8, Lines 2-5).**

Regarding claim 19, The communications system of claim 17, in which each interface includes means for sending the values as part of a message comprising an address representing the second node, **[nodes which are capable of performing functions within the network, including routing of messages between the node itself and its adjacent or neighboring nodes, selection of routes for messages to be transmitted between two nodes, (Brabson et al., Paragraph 6, Page 1)].**

Regarding claim 20, The communications system of claim 19, in which the address comprised in the message representing the same second node sent from each interface is the same, **[while a border node in one topology sub network may be aware of a link address to a border node in an adjacent topology sub network, it**

has no other information about the topology of that adjacent topology sub network, (Brabson et al., Paragraph 11, Page 2)].

Regarding claim 23, the communications system of claim 17, in which the first protocol is TCP/IP, **[OSPF and RIP are commonly used for routing in Transmission Control Protocol/Internet Protocol (TCP/IP) networks, (Brabson et al., Paragraph 7, Page 1)],**

and in which the second protocol is ISO, **[the Open Systems Interconnection ("OSI") reference model, which is defined in International Standard ISO/IEC, (Brabson et al., Paragraph 8, Page 1)].**

Regarding claim 24, The communications system of claim 17, in which the first protocol is ISO, **[the Open Systems Interconnection ("OSI") reference model, which is defined in International Standard ISO/IEC, (Brabson et al., Paragraph 8, Page 1)].**

and in which the second protocol is TCP/IP, **[OSPF and RIP are commonly used for routing in Transmission Control Protocol/Internet Protocol (TCP/IP) networks, (Brabson et al., Paragraph 7, Page 1)].**

Regarding claim 25, the communications system of claim 17, in which the selection means includes means for avoiding usage of any interface from which it is not receiving the values, **[network nodes may be avoided when routing data between**

nodes which are defined as being connected to the same virtual routing node, (Brabson et al., Paragraph 27, Page 3)].

Regarding claim 26, the communications system of claim 17, in which each interface provides conversion between the first and second protocols, **[a routing protocol, which is used to select an appropriate route or path through the network on which to transmit the data, (Brabson et al., Paragraph 7, Page 1)].**

Regarding claim 27, the communications system of claim 17, in which the means for sending the values is arranged to send the values by means of the protocol for that network, **[Underlying networks may use different location protocols and different routing protocols, and may transmit data in different data packet formats, (Brabson et al., Paragraph 12, Page 2)].**

Regarding claim 28, The communications system of claim 17, in which the protocols comprise a transport layer and a network layer, **[the network layer and underlying network layer are distinct and architecturally separate, (Brabson et al., Paragraph 25, Page 3)],**

and in which the transport layer comprises means for controlling the values sent, **[nodes at the underlying network layer (sometimes referred to as the "data link" layer or "data link control" layer) is often unaware of the higher layer protocols,**

and in particular of the network layer protocols, (Brabson et al., Paragraph 13, Page 2)].

Regarding claim 30, a communications system, comprising: a) a first network for communicating data according to a first protocol, **[FIG. 2 illustrates an example scenario where end node 200 APPN network 210 requests a connection to end node 260 in a second APPN network 270, wherein the first network is Ref # 210, (Brabson et al., Paragraph 17, Page 2)],**

b) a second network for communicating data according to a second protocol, [**[FIG. 2 illustrates an example scenario where end node 200 APPN network 210 requests a connection to end node 260 in a second APPN network 270, wherein the second network is Ref # 270, (Brabson et al., Paragraph 17, Page 2)],**

c) each network including at least one node, **[The route will include the originating node, the destination node, possibly one or more intermediate nodes, and the links or transmission groups which connect the nodes on the route as shown in Fig. 2, wherein networks 210 and 270 have their own nodes, (Brabson et al., Paragraph 5, Page 1)],**

d) a plurality of communication interfaces for providing communication between a first node of the first network and a second node of the second network, **[Border nodes enable communication between two or more networks, and have a network node interface for outbound communications from the native (e.g. originating node's)**

network and an end node interface for inbound communications from the non-native (e.g. destination node's) network, (Brabson et al., Paragraph 6, Page 1)],

Brabson et al. fails to teach sending values to the first node for indicating availability of communication between that interface and the second node,

Kaplan et al. teaches each interface including means for sending values to the first node for indicating availability of communication between that interface and the second node, **[means for measuring the value of variable parameters associated with each of the telecommunications paths, wherein sending the value of that interface to indicate availability as shown in Fig. 3, (Kaplan et al., Col. 3, Lines 6-10)],**

e) selection means for selecting one of the interfaces for communicating the data between the first node and the second node based on the values sent by the interfaces to the first node, **[After all the interfaces have been analyzed in the above manner, then the routing optimization block 26 makes a determination as which interface should be selected in accordance with the highest value for final value, (Kaplan et al., Col. 7, Lines 53-58)],**

f) each interface including means for detecting the selection of the one interface, **[measuring means for determining which of the plurality of telecommunications paths should be utilized for transferring the data file in accordance with the set of user priorities, (Kaplan et al., Col. 3, Lines 13-17)],**

and means for modifying, on the selection of the selected one interface, the value sent to the first node, **[allows a user to override preset default values and specify**

critical transfer parameters on a file-by-file basis, wherein the user modifies the value of that interface, (Kaplan et al., Col. 2, Lines 59-64)],

and g) the selection means including means for preferentially selecting the interface associated with the value modified by the modifying means, **[After all the interfaces have been analyzed in the above manner, then the routing optimization block 26 makes a determination as which interface should be selected in accordance with the highest value for final value, (Kaplan et al., Col. 7, Lines 53-58)],** to determine what portion of that bandwidth is actually available for use, **(Kaplan et al., Col. 8, Lines 2-5),**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Brabson by sending values to the first node for indicating availability of communication between that interface and the second node, **[means for measuring the value of variable parameters associated with each of the telecommunications paths, wherein sending the value of that interface to indicate availability as shown in Fig. 3, (Kaplan et al., Col. 3, Lines 6-10)],** to determine what portion of that bandwidth is actually available for use, **(Kaplan et al., Col. 8, Lines 2-5).**

Regarding claim 31, The method of claim 30, in which the protocols comprise a transport layer and a network layer, **[the network layer and underlying network layer are distinct and architecturally separate, (Brabson et al., Paragraph 25, Page 3)],**

and further comprising the step of controlling the values sent using the transport layer, **[nodes at the underlying network layer (sometimes referred to as the "data**

link" layer or "data link control" layer) is often unaware of the higher layer protocols, and in particular of the network layer protocols, (Brabson et al., Paragraph 13, Page 2)].

Claims 18, 29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brabson et al. (US 2002,0037168), in view of Kaplan et al. (US 6,473,404), and further in view of Ogier et al. (2003/0179742)

Regarding claim 18, the modified Brabson teaches that border nodes enable communication between two network, and have a network node interface for outbound communications from the native network, **(Brabson et al., Paragraph 6, Page 1)**,

The modified Brabson et al. fails to teach detecting an error condition,

Ogier et al. teaches Receivers should detect errors in message construction, such as messages with a non-integral number of elements or with fewer elements than indicated, **(**Ogier **et al., Paragraph 510, Page 33),** and preventing the sending of values by that interface upon detection of the error condition, upon detecting an error receivers should discontinue processing the current TBRPF packet and discard any unprocessed elements, **(Ogier et al., Paragraph 510, Page 33)**, to map messages from destinations back to the actual IPv4 node within the subnet, **(Ogier et al., Paragraph 321, Page 20),**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Brabson by detecting an error condition,

wherein Ogier et al. teaches Receivers should detect errors in message construction, such as messages with a non-integral number of elements or with fewer elements than indicated, **(**Ogier **et al., Paragraph 510, Page 33),** and preventing the sending of values by that interface upon detection of the error condition, upon detecting an error receivers should discontinue processing the current TBRPF packet and discard any unprocessed elements, **(Ogier et al., Paragraph 510, Page 33)**, to map messages from destinations back to the actual IPv4 node within the subnet, **(Ogier et al., Paragraph 321, Page 20).**

Regarding claim 29, the modified Brabson teaches that border nodes enable communication between two network, and have a network node interface for outbound communications from the native network, **(Brabson et al., Paragraph 6, Page 1)**,

The modified Brabson et al. fails to teach a routing metrics,

Ogier et al. teaches cost(u,v)--The cost for link (u,v), equal to 1+METRIC COEFF * metric(u,v). Used for computing routes if use metrics=1, **(Ogier et al., Paragraph 563, Page 34)**, **)**, to map messages from destinations back to the actual IPv4 node within the subnet, **(Ogier et al., Paragraph 321, Page 20),**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Brabson by including a routing metrics, as taught by Ogier et al. teaches cost(u,v)--The cost for link (u,v), equal to 1+METRIC COEFF * metric(u,v). Used for computing routes if use metrics=1, **(Ogier et al.,**

Paragraph 563, Page 34), **)**, to map messages from destinations back to the actual IPv4 node within the subnet, **(Ogier et al., Paragraph 321, Page 20).**

Regarding claim 32, the modified Brabson teaches that border nodes enable communication between two network, and have a network node interface for outbound communications from the native network, **(Brabson et al., Paragraph 6, Page 1)**,

The modified Brabson et al. fails to teach a routing metrics,

Ogier et al. teaches cost(u,v)--The cost for link (u,v), equal to 1+METRIC COEFF * metric(u,v). Used for computing routes if use metrics=1, **(Ogier et al., Paragraph 563, Page 34)**, **)**, to map messages from destinations back to the actual IPv4 node within the subnet, **(Ogier et al., Paragraph 321, Page 20),**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Brabson by including a routing metrics, as taught by Ogier et al. teaches cost(u,v)--The cost for link (u,v), equal to 1+METRIC COEFF * metric(u,v). Used for computing routes if use metrics=1, **(Ogier et al., Paragraph 563, Page 34)**, **)**, to map messages from destinations back to the actual IPv4 node within the subnet, **(Ogier et al., Paragraph 321, Page 20).**

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brabson et al. (US 2002,0037168), in view of Kaplan et al. (US 6,473,404), and further in view of Vyas et al. (2003/0179742)

Regarding claim 21, the modified Brabson teaches that border nodes enable communication between two network, and have a network node interface for outbound communications from the native network, **(Brabson et al., Paragraph 6, Page 1)**,

The modified Brabson fails to teach mapping an IP onto a network service access protocol (NSAP),

Vyas et al. teaches SVC set up block 350 receives a SVC set up request (from forwarding block 340) along with an NSAP (and IP address mapping to the NSAP), **(Vyas et al., Paragraph 30, Page 2)**, to support user applications on switched virtual circuits (SVC), **(Vyas et al., Paragraph 6, Page 2)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Brabson by mapping an IP onto a network service access protocol (NSAP), Vyas et al. teaches SVC set up block 350 receives a SVC set up request (from forwarding block 340) along with an NSAP (and IP address mapping to the NSAP), **(Vyas et al., Paragraph 30, Page 2)**, to support user applications on switched virtual circuits (SVC), **(Vyas et al., Paragraph 6, Page 2).**

Regarding claim 22, the modified Brabson teaches that border nodes enable communication between two network, and have a network node interface for outbound communications from the native network, **(Brabson et al., Paragraph 6, Page 1)**,

The modified Brabson fails to teach mapping a network service access protocol (NSAP) address onto an internet protocol (IP),

Vyas et al. teaches SVC set up block 350 receives a SVC set up request (from forwarding block 340) along with an NSAP (and IP address mapping to the NSAP), **(Vyas et al., Paragraph 30, Page 2)**, to support user applications on switched virtual circuits (SVC), **(Vyas et al., Paragraph 6, Page 2)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Brabson by mapping an IP onto a network service access protocol (NSAP), Vyas et al. teaches SVC set up block 350 receives a SVC set up request (from forwarding block 340) along with an NSAP (and IP address mapping to the NSAP), **(Vyas et al., Paragraph 30, Page 2)**, to support user applications on switched virtual circuits (SVC), **(Vyas et al., Paragraph 6, Page 2).**

Response to Arguments

The Applicant Argues:

That Brabson et al. does not disclose or suggest that the values should be modified in the interface when the interface is selected.

In response, the examiner respectfully submits: Brabson et al. teaches technique is disclosed for routing data across multiple topology subnets, and for improving the connectivity between nodes in multiple topology subnets, by using a common connection network. Kaplan et al. teaches a telecommunications switching system employing multi-protocol routing optimization which utilizes predetermined and measured parameters in accordance with a set of user priorities in determining the

selection of a telecommunications path to be utilized for transmitting a data file to a remote destination. Kaplan et al. further teaches Kaplan et al. teaches each interface including means for sending values to the first node for indicating availability of communication between that interface and the second node, means for measuring the value of variable parameters associated with each of the telecommunications paths, wherein sending the value of that interface to indicate availability as shown in Fig. 3, **(Kaplan et al., Col. 3, Lines 6-10),** after all the interfaces have been analyzed in the above manner, then the routing optimization block 26 makes a determination as which interface should be selected in accordance with the highest value for final value, **(Kaplan et al., Col. 7, Lines 53-58)],** measuring means for determining which of the plurality of telecommunications paths should be utilized for transferring the data file in accordance with the set of user priorities, **(Kaplan et al., Col. 3, Lines 13-17)],**

and means for modifying, on the selection of the selected one interface, the value sent to the first node, allows a user to override preset default values and specify critical transfer parameters on a file-by-file basis, wherein the user modifies the value of that interface, **(Kaplan et al., Col. 2, Lines 59-64)],**

and g) the selection means including means for preferentially selecting the interface associated with the value modified by the modifying means, after all the interfaces have been analyzed in the above manner, then the routing optimization block 26 makes a determination as which interface should be selected in accordance with the highest value for final value, **(Kaplan et al., Col. 7, Lines 53-58) and (Kaplan et al., Col. 3, lines 3 – 10)].**

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shaq Taha** whose telephone number is 571-270-1921. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jeff Pwu** can be reached on 571-272-6798.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/S. T./

Examiner, Art Unit 2446

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2446